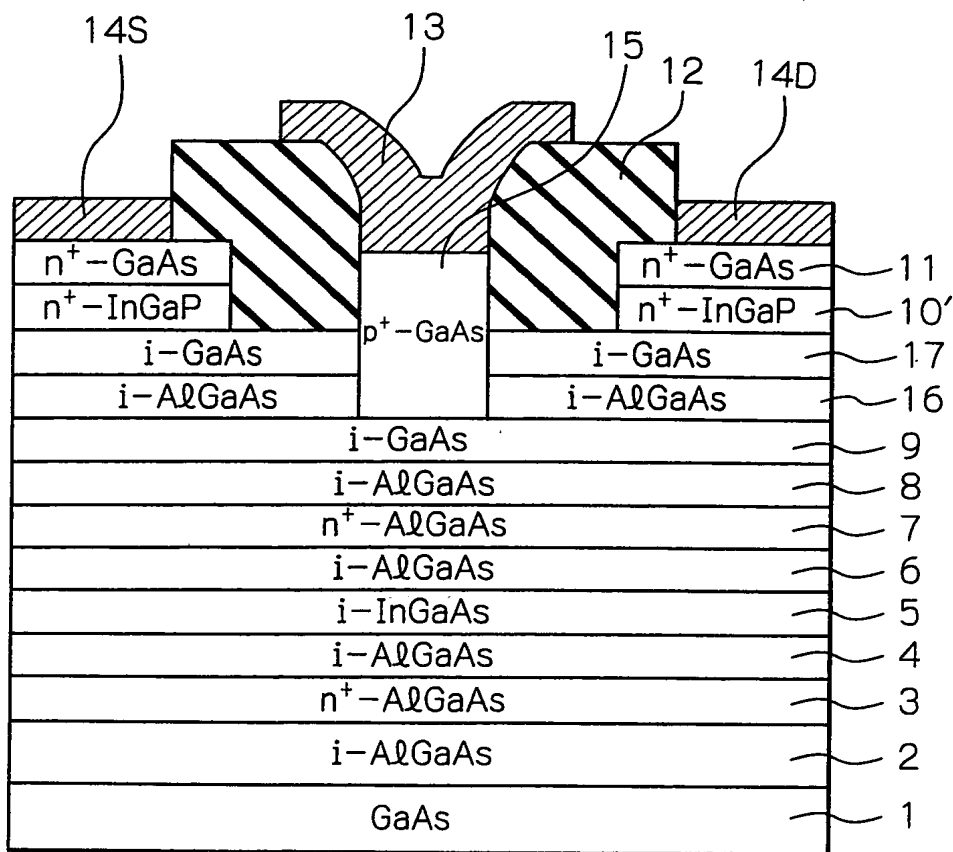


The diagram shows a cross-section of a semiconductor device. The substrate consists of several layers, numbered 1 through 9 from bottom to top: 1 (GaAs), 2 (i-AlGaAs), 3 (n⁺-AlGaAs), 4 (i-AlGaAs), 5 (i-InGaAs), 6 (i-AlGaAs), 7 (n⁺-AlGaAs), 8 (i-AlGaAs), and 9 (i-GaAs). On top of layer 9, there are two main regions: a left region with layers 10 (n⁺-AlGaAs) and 11 (n⁺-GaAs), and a right region with layers 12 (n⁺-AlGaAs) and 13 (n⁺-GaAs). A central region (14) is a p⁺-GaAs layer. A gate structure (15) is formed on top of the central region. The gate structure includes a gate dielectric (14S) and a gate electrode (14D). The gate electrode is divided into two parts: a left part (13) and a right part (12).

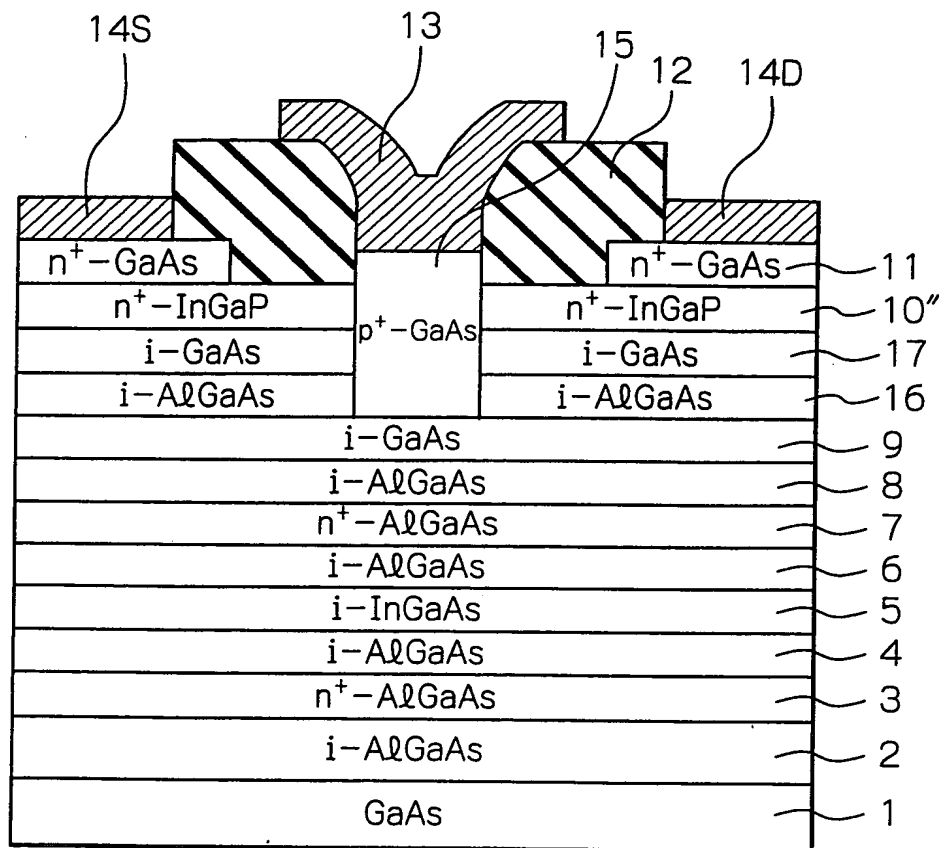
Fig. 11



For: HETEROJUNCTION FIELD EFFECT TYPE SEMICONDUCTOR
DEVICE HAVING HIGH GATE TURN-ON VOLTAGE AND LOW ON-
RESISTANCE AND ITS MANUFACTURING METHOD
REPLACEMENT SHEET

Ref. No.: Q78644

For: HETEROJUNCTION FIELD EFFECT TYPE SEMICONDUCTOR
DEVICE HAVING HIGH GATE TURN-ON VOLTAGE AND LOW ON-
RESISTANCE AND ITS MANUFACTURING METHOD
REPLACEMENT SHEET



Inventors: Yasunori BITO

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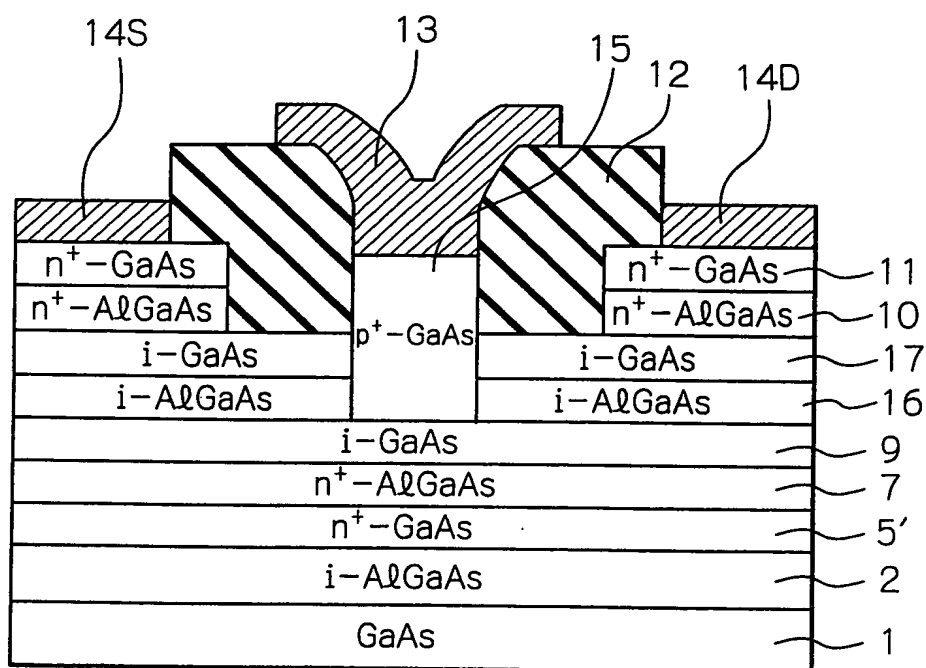
Art Unit 2826

Conf. No. 4905

Ref. No.: Q78644

For: HETEROJUNCTION FIELD EFFECT TYPE SEMICONDUCTOR
DEVICE HAVING HIGH GATE TURN-ON VOLTAGE AND LOW ON-
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REPLACEMENT SHEET

Fig. 13



Inventors: Yasunori BITO

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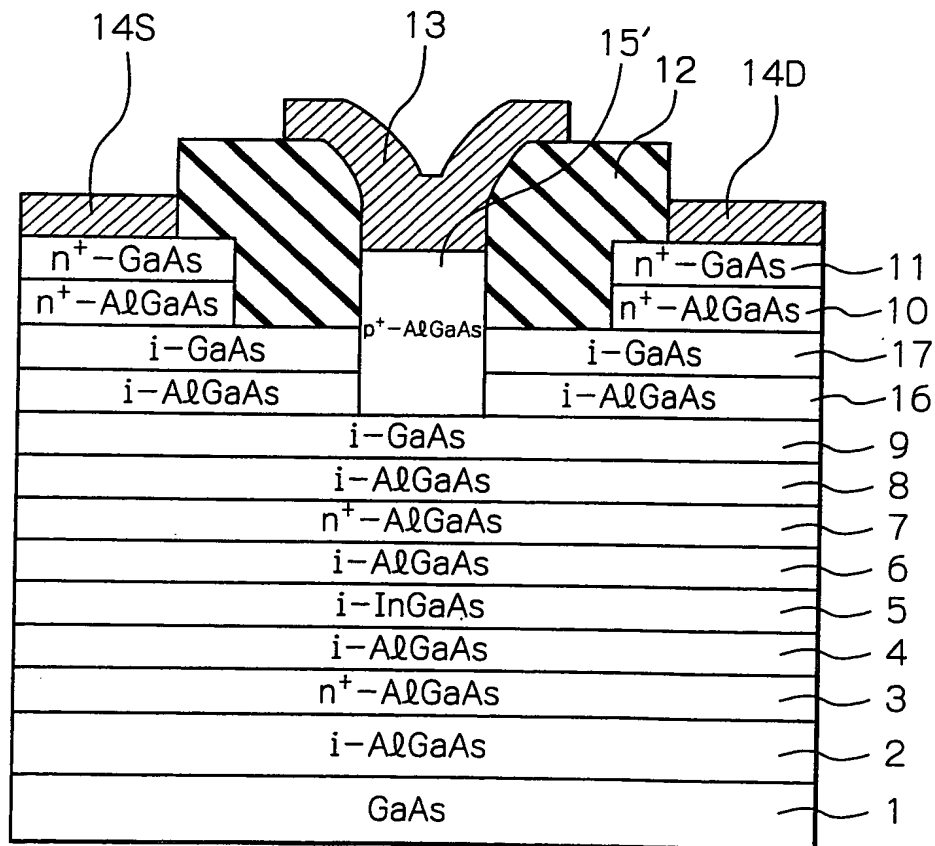
Art Unit 2826

Conf. No. 4905

Ref. No.: Q78644

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Fig. 14



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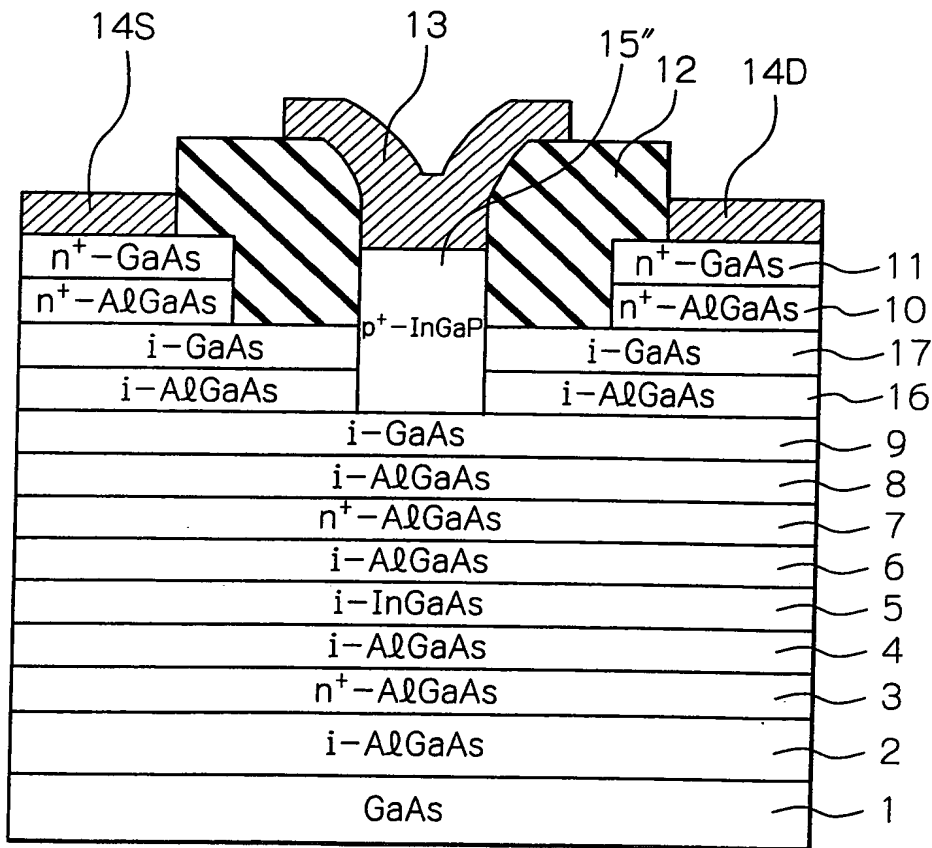
Art Unit 2826

Conf. No. 4905

Ref. No.: Q78644

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RESISTANCE AND ITS MANUFACTURING METHOD
REPLACEMENT SHEET

Fig. 15

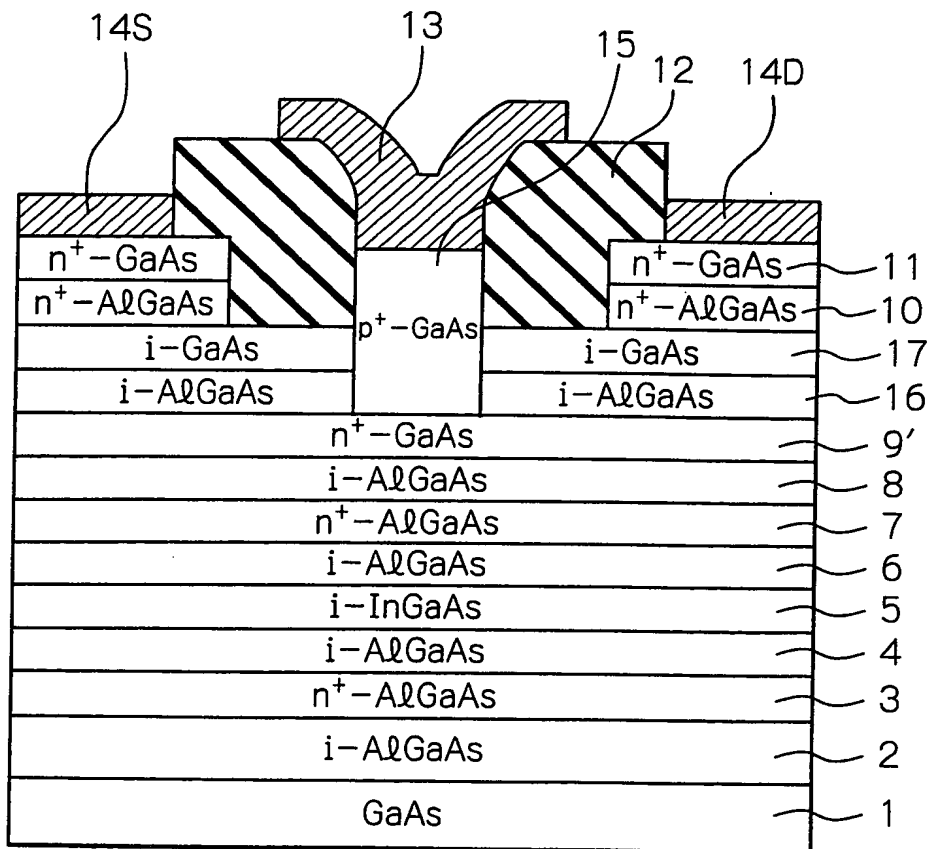


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Fig. 16



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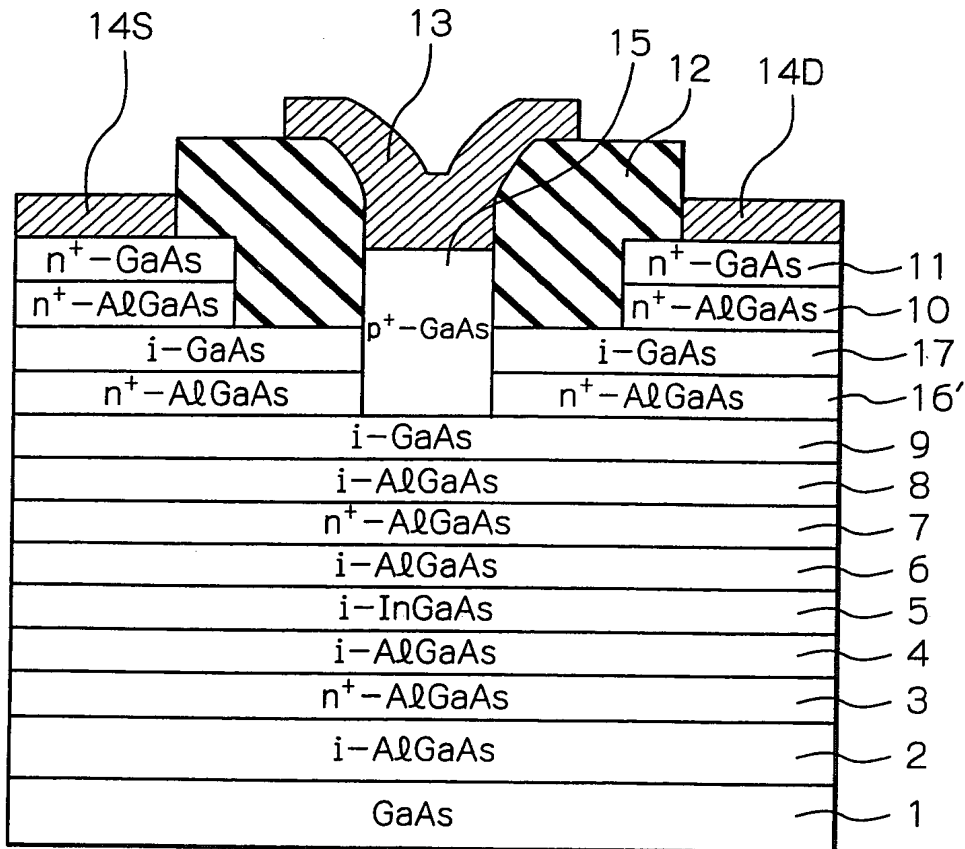
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Fig. 17



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Fig. 18

